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FEE TRANSMITTAL for FY 2003

Patent fee are subject to annual revision.

TOTAL AMOUNT OF PAYMENT ($)430.00

Complete if Known	
Application Number	09/808,703
Filing Date	March 14, 2001
First Named Inventor	Troy Squires
Examiner Name	A. Bahta
Group Art Unit	1775
Attorney Docket No.	044502.0017

METHOD OF PAYMENT

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:
   Deposit Account Number: 01-0660
   Deposit Account Name: Akin Gump Deposit Account
   ☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17
   ☐ Applicant claims small entity status. See 37 CFR 1.27
2. ☒ **Payment Enclosed:**
   ☒ Check ☐ Credit Card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
				SUBTOTAL (1)	($)

2. EXTRA CLAIM FEES

		Extra Claims		Fee from below		Fee Paid
Total Claims	-20** =	0	X	$18.00	=	$ .00
Independent Claims	- 4** =	0	X	$84.00	=	$ .00
Multiple Dependent				-0-	=	-0-

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
1202	18	2202	9	Claims in excess of 20
1001	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	**Reissue independent claims over original patent
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent
				SUBTOTAL (2) ($)

***or number previously paid, if greater; For Reissues, see above.*

FEE CALCULATION (continued)

3. ADDITONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge – late filing fee or oath	
1052	50	2052	25	Surcharge – late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	1,480.00
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	320.00
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive – unavoidable	
1453	1,300	2453	650	Petition to revive – unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR § 1,129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	
				Other fee (specify)	

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) ($) 1,800.00

SUBMITTED BY				Complete *(if applicable)*	
Name (Print/Type)	Gregory C. Mathis	*Registration No. (Attorney/Agent)*	44,908	*Telephone*	512-499-6209
Signature	Gregory C. Mathis			*Date*	December 12, 2003

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Appellant:			
TROY SQUIRES			
Filed:	March 14, 2001	Art Unit:	1775
Serial No.:	09/808,703	Examiner:	A. Bahta
For:	HORIZONTALLY DRAINING, PRE-ENGINEERED SYNTHETIC TURF FIELD	Docket No.:	044502.0017

APPEAL BRIEF

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APPENDICES

A.	CLAIMS ON APPEAL
B.	Dempsey (European Patent Application No. 0 452 529 A1)
C.	Nussbaumer (U.S. Patent No. 4,768,897)
D.	Friedrich (U.S. Patent No. 4,444,815)
E.	Motz (U.S. Patent No. 6,029,397)
F.	Affidavit of Bruce Layman, Jr., Under Rule 132

CERTIFICATE OF MAILING 37 C.F.R. 1.10

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I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office To Addressee" service with sufficient postage on the date indicated below and is addressed to: MAIL STOP APPEAL BRIEF - PATENTS, COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VIRGINIA 22313-1450.

BY: Kathryn Bryan DATE: December 12, 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Appellant:	§		
	§		
TROY SQUIRES	§		
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Filed: March 14, 2001	§	Art Unit:	1775
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Serial No.: 09/808,703	§	Examiner:	A. Bahta
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Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPELLANT'S BRIEF (37 C.F.R. § 1.192)

Dear Commissioner:

Appellant submits in triplicate his Appeal Brief on behalf of his assignee, Southwest Recreational Industries, Inc., from the Final Rejection dated March 12, 2003. A Request for Reconsideration was submitted on May 12, 2003, but was deemed to not place the claims in condition for allowance in an Advisory Action mailed May 22, 2003. This brief is in furtherance of a timely Notice of Appeal filed with appropriate fee on June 12, 2003.

A check for $320 for filing an appeal brief is enclosed. A Petition for Extension and the associated fee are dealt with in the accompanying transmittal and also below. The Commissioner is hereby authorized to charge any additional fees which may be required or credit any overpayment to Deposit Account No. 01-0660.

I. REAL PARTY IN INTEREST

The present application is assigned under 35 U.S.C. § 261 to Southwest Recreational Industries, Inc. Southwest Recreational Industries, Inc., which conducts business as SRI Sports, Inc., is a corporation organized under the laws of the State of Texas and a subsidiary of American Sports Products Group Inc., a privately-held corporation organized under the laws of the State of Delaware.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect or be directly affected by the Board's decision in the present appeal.

III. STATUS OF THE CLAIMS

Claims 1-20, which are all pending claims of the present application, are the appealed claims. They are set forth in their present form in Appendix A attached hereto.

IV. STATUS OF AMENDMENTS

All amendments have been entered.

V. SUMMARY OF THE INVENTION

In one embodiment according to the present invention as shown in Fig. 1, a horizontally draining, pre-engineered synthetic turf field 100, includes various layers beginning with a base 102. (pg. 9; ln. 14) The base may be made of any combination of natural or formulated material available in, or transported to, the area of construction. On top of the base 102 is a moisture barrier layer 104, an impermeable layer that prevents water or

other liquids from passing through to the base 102 except at specific predetermined locations which serves to prevent undesirable erosion of the base 102. (pg. 10; ln. 9) Atop the moisture barrier layer 104 is a drainage layer 106 which is commonly at least partially an impermeable layer with patterned protrusions and which may be combined with the moisture barrier layer 104 to form a single layer. (pg. 10; ln. 13) Placed upon the patterned protrusions of the drainage layer 106 is a filtering layer 108 made of a non-woven geotextile such as polypropylene or a woven geotextile. (pg. 10; ln. 15) An artificial turf mat 110 with grass blades 112 (artificial grass, a combination of artificial and natural grass, or otherwise) is placed on top of the filtering layer 108. (pg. 10; ln. 18)

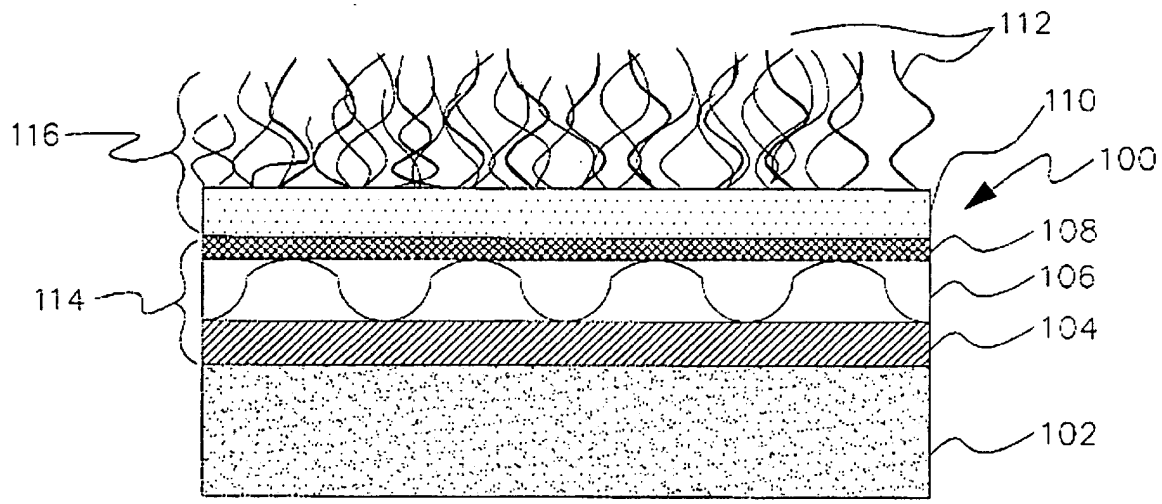

FIG.1

The protrusions of the drainage layer 106 create room for water to pass through the artificial turf mat 110 The water is then absorbed into the filtering layer 108 where objects such as dirt, sand, etc., are filtered out. (pg. 12; ln. 1) The filtered water reaches the drainage layer 106 where space is available for the water to move. The space is always available whether or not water is flowing because the filtering layer 106 prevents extraneous objects such as the sand or dirt from clogging the drainage layer 106. A slightly sloped pre-

engineered synthetic turf field 100 allows the water to drain from the field 100 into a drainage system (not shown) that removes the water from the area completely. (pg. 12; ln. 16)

The moisture barrier layer 104, the drainage layer 106 and the filtering layer 108 may be combined into a single unit that may be easily rolled out onto the base 102 during installation. (pg. 12; ln. 18) The artificial turf mat 110 and the grass blades 112 may also be combined into a single unit, an artificial turf 116, for easy installation of the pre-engineered artificial turf system 100. (pg. 12; ln. 21) A drainage system including drainage pipes in various configurations may also be included in the base of any embodiment of the invention, as desired.

In another embodiment of the present invention as shown in Fig. 2, a horizontally draining, pre-engineered synthetic turf field 200 similar to the field 100 has a drainage layer 206 as illustrated that is a composite such as plastic that is extruded into long fibers and gathered to form a continuous support in the field 200. (pg. 13; ln. 9) The plastic of the drainage layer 206 is shaped, for example, like bedsprings. The drainage layer 206 may provide a softer field 200 than the field 100 and would be preferred if the field 200 is known to be used for activities conducive to a softer feel. (pg. 13; ln. 12)

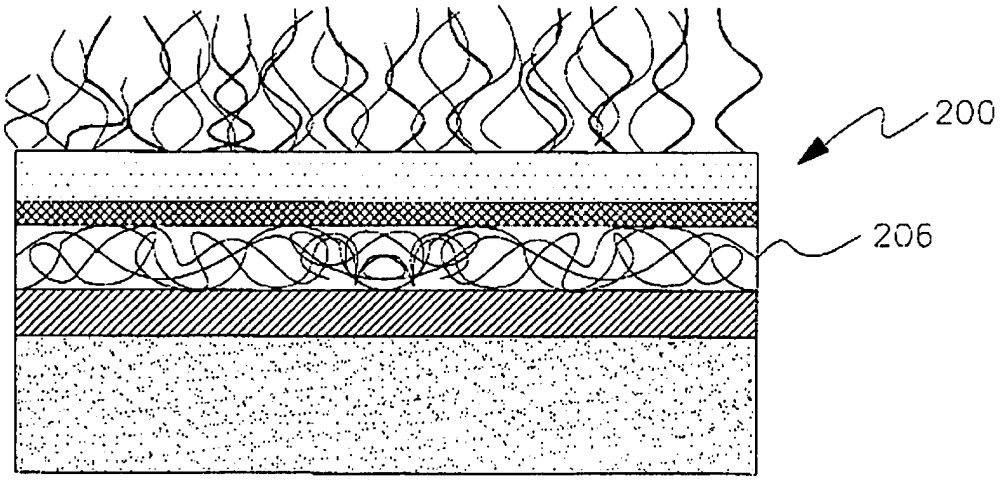

FIG. 2

VI. ISSUES ON APPEAL

1. Whether the Examiner has established a *prima facie* case that claims 1-13 and 17-20 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Dempsey (European Patent Application No. 0 452 529 A1) in view of Nussbaumer (U.S. Patent No. 4,768,897) or Friedrich (U.S. Patent No. 4,444,815) and further in view of Motz (U.S. Patent No. 6,029,397).

2. Whether the Examiner has established a *prima facie* case that claims 14-16 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Dempsey (European Patent Application No. 0 452 529 A1) in view of Nussbaumer (U.S. Patent No. 4,768,897).

VII. GROUPING OF THE CLAIMS

The claims on appeal stand or fall together. Claim 1 will be discussed below as illustrative of the scope of the claims.

VIII. ARGUMENT

A. Summary of Argument

The Examiner erred in rejecting Appellant's claims under 35 U.S.C. § 103(a) based on a combination of references that do not describe the claimed invention and by failing to point to any suggestion, teaching or motivation within the prior art to combine those references to yield Appellant's claimed subject matter. The Examiner merely offered separate references describing certain artificial turf assemblies together with a single reference describing a sub-grade waste depository cover, and asserted that it would have been obvious to one of ordinary skill in the art to replace the water-permeable shock absorbing layer of Dempsey with a filter material.

The purported motivation to substitute a filter layer for the shock absorbing layer of Dempsey, according to the Examiner, is provided by Dempsey itself. However, the

Examiner's view of Dempsey is predicated on a misinterpretation of the reference which even Dempsey expressly contradicts, thereby rendering the conclusion drawn from the reference clearly erroneous. The Examiner's errant reading of Dempsey forms the foundation for each of the separate § 103(a) rejections against the pending claims. When properly reversed, no other basis remains for combining the cited references, as all other assertions of obviousness made by the Examiner refer to the presence of some features in one reference or another without providing any support for their combination, which in any event does not even describe the claimed subject matter.

Aside from refuting the Examiner's unsubstantiated combination of the cited references, Appellant also submitted an Affidavit under 37 C.F.R. § 1.132 to support the patentability of the artificial turf system of the claims. The Affidavit affirms, among other things, superior and unexpected results achieved by the invention, subsequent copying of the invention by others, a long-felt unfulfilled need for the invention, and reasons why others failed to make the invention.

B. Dempsey does <u>not</u> suggest the inclusion of a drainage layer.

Appellant submits that in rejecting claims 1-13 and 17-20 under § 103(a) over Dempsey in view of Nussbaumer or Friedrich and further in view of Motz, the Examiner mischaracterized Dempsey with respect to its shock absorbing layer 20, which lead to an erroneous assertion that Dempsey provides motivation for combining the cited references and ultimately, to an improper rejection of such claims. That same mischaracterization of Dempsey also underlies the Examiner's rejection of claims 14-16 under § 103(a) over Dempsey in view of Nussbaumer, which was also improper for lack of motivation to combine such references and reject the claims.

Dempsey describes an artificial turf surface having permeable section 12 comprised of water permeable "artificial turf 18 position atop shock absorbing material 20, which is also

water permeable." (col. 3, ln. 9-12) The sock absorbing layer 20 of Dempsey permits water drainage, but does not serve as a filter to prevent sand or other material from passing through the layer and into the drainage areas where it can undesirably clog the flow of water through the system and away from the playing surface. Indeed, the Examiner even acknowledges that Dempsey "does not specifically mention a filtering layer." (Office Action, May 12, 2003, p. 3)

According to Dempsey, "[t]o provide adequate drainage of water, the layer of shock absorbing material 20 should have a plurality of vertical perforations 26." (col. 3, ln. 32-35) The inclusion of perforations in the shock absorbing material would allow even more material into the drainage areas, but still Dempsey fails to teach filtration of the water to prevent the accumulation of debris in the drainage areas. (col. 3, ln. 32-35) The shock absorbing material taught by Dempsey is made from a polymeric pad, such as a polymeric foam of an interpolymer of polyvinyl chloride and nitrile rubber having closed cells. (col. 3, ln. 26-27) Yet, even if the perforations 26 are omitted entirely, Dempsey still teaches that the shock absorbing material must otherwise be water-permeable. (col. 3, ln. 47-49) Dempsey expressly defines "permeable" to mean "capable of having the fluid drain through section 12, whether through perforations 26 or [sic] otherwise." (col. 3, ln. 57 – col. 4, ln. 1)

Dempsey states alternatively that "the shock absorbing layer 20 may be comprised [sic] an open-celled material through which water may drain directly without the need for, or in addition to, perforations 26." (col. 3, ln. 50-54) (emphasis added). In an "open-celled" configuration, Dempsey clearly refers to a water-permeable layer through which water drains directly. However, the Examiner asserts that the foregoing description of a water-permeable layer suggests to a person of ordinary skill in the art to instead use a filter material, even though Dempsey no where hints at any filter, nor sand or other material, nor their potential to affect proper drainage of water through the system.

Accordingly, Dempsey does not, as the Examiner asserts, suggest the inclusion or substitution of any filter material, nor otherwise serve as motivation to combine Dempsey with the other cited references. In fact, if anything, Dempsey teaches away from the inclusion of a filter layer. Because, Dempsey fails, among other things, to show "a filtering layer disposed upon [a] drainage layer to prevent passage of undesirable particles in the fluid into the drainage layer" as recited in independent claims 1, 14 and 17, the Examiner's assertion that the reference would motive one of ordinary skill in the art to combine Dempsey with the remaining cited references is incorrect, and the rejection of claims under § 103(a) over Dempsey is improper.

C. Mere citation of references or the ordinary skill of the art is not sufficient to establish *prima facie* obviousness.

The Nussbaumer and Friedrich references are cited in an attempt to show that filtering layers are well known in the art of artificial turf coverings, but fails to identify a basis for combining any features described in such references with a shock absorbing material or layer. Indeed, Nussbaumer describes a sub-grade waste depository cover installed well below root level, and lacks even the slightest hint of a shock absorbing layer, if the reference even pertains to the claimed invention at all. Friedrich too lacks mention of a shock absorbing material or characteristic, nor where such a material might be disposed within the design to achieve a desirable playing surface, but instead describes simply a "sand layer 16." (col. 2, ln. 40)

Appellant's invention is not evident from, nor even intimated by, these cited references whether singularly or in combination, and no suggestion exists for combining the cited references with one having a shock absorbing material. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). The showing of a suggestion, teaching, or motivation to

combine prior teachings "must be clear and particular . . .. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence'." *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). The art must fairly teach or suggest to one to make the specific combination as claimed. That one achieves an improved result by making such a combination is no more than hindsight without an initial suggestion to make the combination. The only suggestion offered for the particular claimed combination is Dempsey's language that "the shock absorbing layer 20 may be comprised of an open celled material through which water may drain directly" (Dempsey col 3, lines 50-53). Thus, the §103 rejection of independent claims 1, 14 and 17 should be withdrawn if for this reason only.

IX. CONCLUSION

For reasons set forth above, it is respectfully submitted that the final rejections of claims 1-20 under 35 U.S.C. § 103(a) are clearly erroneous. The appropriate course of action is to reverse the final rejection of Appellant's claims 1-20 on appeal, and such action is respectfully requested of this Board.

Appellant attaches hereto a Petition and fee for a 4-month extension of time. Appellant believes no other fees are due in this application; however, the Commissioner is hereby authorized to apply any outstanding fees or credits to Akin, Gump, Strauss, Hauer & Feld, L.L.P. Deposit Account No. 16-2435.

Respectfully submitted,

Date: December 12, 2003

By: Gregory C. Mathis

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Appendix A

Claims on Appeal (37 C.F.R. § 1.192(c)(9))

1. (Original) An artificial turf system comprising:

a base that is readily constructed, at least in part, from naturally occurring ground elements that are present upon initiation of the construction of the base, the base being constructed to include a drainage mechanism that is disposed near the surface of the base; and

a turf assembly that is laid out upon the base and that is constructed to pass fluid therethrough such that the fluid is specifically directed to the drainage mechanism of the base as it moves through the turf assembly, the turf assembly comprising a plurality of layers including:

an impermeable moisture barrier layer that is laid upon the base such that the fluid may only pass to the base at predetermined locations that correspond to the drainage mechanism;

a drainage layer disposed upon the impermeable moisture barrier layer that creates an area where fluid is free to pass to the impermeable moisture barrier layer and ultimately to the drainage mechanism of the base;

a filtering layer disposed upon the drainage layer that filters out undesirable particles from the fluid as the fluid passes through the filtering layer and into the drainage layer, the area between the filtering layer and the impermeable moisture barrier layer being permanently available whether or not fluid is passing therethrough; and

a turf mat disposed upon the filtering layer having grass on an upper surface to give the artificial turf system the appearance of a completely natural grass field.

2. (Original) The artificial turf system of claim 1 wherein the grass comprises synthetic material that has been formed to appear like natural grass.

3. (Original) The artificial turf system of claim 1 wherein the grass comprises a mixture of natural and synthetic material to form a layer that appears like a completely natural grass surface.

4. (Original) The artificial turf system of claim 1 wherein the drainage layer comprises a plastic layer having evenly distributed protrusions of the same height.

5. (Original) The artificial turf system of claim 1 wherein the drainage layer comprises a spring-like distribution of elongate plastic material.

6. (Original) The artificial turf system of claim 1 wherein the filtering layer is a woven geotextile.

7. (Original) The artificial turf system of claim 1 wherein the filtering layer is a non-woven geotextile.

8. (Original) The artificial turf system of claim 1 wherein the impermeable moisture barrier layer, the filtering layer, and the drainage layer are positioned separately.

9. (Original) The artificial turf system of claim 1 wherein the impermeable moisture barrier layer, the filtering layer, and the drainage layer are a single unit.

10. (Original) The artificial turf system of claim 1 wherein the base comprises natural soil.

11. (Original) The artificial turf system of claim 10 wherein the base further comprises at least one of a plurality of stabilizing agents.

12. (Original) The artificial turf system of claim 11 wherein the stabilizing agent is selected from the group consisting of lime, fly ash, stone, and enzyme.

13. (Original) The artificial turf system of claim 1 wherein the turf assembly and base combination is substantially flat in order to provide a playing surface for a plurality of sporting activities.

14. (Original) A method for assembling a pre-engineered synthetic turf system comprising:

forming a base having a drainage system built in for draining fluids away from the pre-engineered synthetic turf system; and

laying out a turf assembly upon the base such that fluids contacting the turf assembly pass into the drainage system of the base through various layers of the turf assembly, the various layers of the turf assembly including:

an impermeable moisture barrier layer disposed upon the base such that fluid passing through the turf assembly reaches the base in certain predetermined areas only;

a drainage layer disposed upon the moisture barrier layer that provides an open space for passage of fluid, the open space remaining open even when fluid is not passing therethrough;

a filtering layer disposed upon the drainage layer to prevent passage of undesirable particles in the fluid into the drainage layer; and

an artificial turf layer having grass on an upper surface, the grass providing the turf assembly with an appearance of a completely natural playing field, the drainage layer providing support for the artificial turf layer such that the turf assembly has the feel of a completely natural playing field.

15. (Original) The method of claim 14 wherein the impermeable moisture barrier layer, the drainage layer, and the filtering layer are combined into a single unit that may be rolled out as a single layer.

16. (Original) The method of claim 15 wherein said laying out the turf assembly comprises:

rolling the single unit onto the base such that the base is completely covered with the single unit and fluid may flow to the base only through specific predetermined locations in the turf assembly; and

rolling the artificial turf layer onto the single unit so that a field is formed that appears similar to a natural grass surface.

17. (Original) A pre-engineered synthetic turf system comprising:

a base having a drainage system built in for draining fluids away from the pre-engineered synthetic turf system; and

a turf assembly disposed upon the base such that fluids contacting the turf assembly pass into the drainage system of the base through various layers of the turf assembly, the various layers of the turf assembly including:

an impermeable moisture barrier layer disposed upon the base such that fluid passing through the turf assembly reaches the base in certain predetermined areas only;

a drainage layer disposed upon the impermeable moisture barrier layer that provides an open space for passage of fluid, the open space remaining open even when fluid is not passing therethrough;

a filtering layer disposed upon the drainage layer to prevent passage of undesirable particles in the fluid into the drainage layer; and

an artificial turf layer having grass on an upper surface, the grass providing the turf assembly with an appearance of a completely natural playing field, the drainage layer providing support for the artificial turf layer such that the turf assembly has the feel of a completely natural playing field.

18. (Original) The pre-engineered synthetic turf system of claim 17 wherein the base is formed as a smooth surface with a slightly curved cross section.

19. (Original) The pre-engineered synthetic turf system of claim 17 wherein the drainage layer comprises a solid plastic material that is shaped as a plurality of evenly distributed protrusions, each of the plurality of protrusions being of the same height.

20. (Original) The pre-engineered synthetic turf system of claim 17 wherein the drainage layer comprises a conglomeration of elongate plastic material that is distributed across the drainage layer such that the elongate plastic material provides the drainage layer with a uniform height across the pre-engineered synthetic turf system.